

CLAIMS

What is claimed is:

1. An optical image scanner comprising:

a lens system;

an iris within the lens system, the iris having at least a first aperture size and a second aperture size, the second aperture size being larger than the first aperture size; and

the iris set to the first aperture size when scanning at a first speed and the iris set to the second aperture size when scanning at a second speed, the second speed faster than the first speed.

2. The optical image scanner of claim 1, further comprising:

the lens system having sufficiently low aberrations at the first aperture size to enable a specified modulation transfer function; and

the lens system having aberrations at the second aperture size such that a resulting modulation transfer function is worse than the specified modulation transfer function.

3. A method for scanning comprising:

selecting a first sampling rate or a second sampling rate, the second sampling rate being higher than the first sampling rate;

scanning using a first aperture size when the sampling rate is the first sampling rate;

scanning using a second aperture size when the sampling rate is the second sampling rate, the first aperture size being larger than the second aperture size.

4. A method for scanning comprising:

selecting a first scanning speed or a second scanning speed, the second scanning speed being faster than the first scanning speed;

scanning using a first aperture size when the scanning speed is the first scanning speed;

scanning using a second aperture size when the scanning speed is the second scanning speed, the first aperture size being smaller than the second aperture size.

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